

20. (Amended) A rock bit as recited in claim 12 wherein the hardfacing comprises in the range of from 10 to 90 percent by weight spherical cast tungsten carbide particles having a particle size between about 80 to 200 mesh, and further comprises ultra-fine tungsten carbide particles in the range of from 10 to 35 percent by weight of the filler material, the particles having a particle size in the range of from about 1 to 50 microns.

24. (Amended) A rock bit as recited in claim 23 wherein the hardfacing comprises in the range of from 10 to 90 percent by weight spherical cast tungsten carbide particles having a particle size between about 16 and 40 mesh and between about 80 to 200 mesh, and further comprises ultra-fine tungsten carbide particles in the range of from 10 to 40 percent by weight of the filler material, the particles having a particle size in the range of from about 1 to 50 microns.

REMARKS

Claims 1-27, as amended, remain in the application.

The Examiner indicated that claims 1-4, 12-16 and 23 are allowed.

The Examiner rejected each of claims 5-11, 17-22 and 24-27 under 35 U.S.C. 112, second paragraph, for impermissibly making a change in a dependent claim which has previously been set forth in a claim upon which it depends.

The Examiner allowed independent claims 1, 12, and 23, from which claims 5-11, 17-22 and 24-27 depend. Claims 1, 12, and 23 each recite a filler comprising 10-100 percent by weight spherical cast tungsten carbide particles of a particular size, and hence cover fillers with either a mixed particle content ($10\% \leq x < 100\%$) or homogenous particle content ($x = 100\%$).

Claims 5, 9, 17, 18, 20, and 24 have each been amended to specifically recite a filler with mixed particle content including 10-90 percent or 10-99 percent of the particle type defined in the respective independent claim and further comprising another particle type and/or particle size. Hence, these claims, as amended, properly fall within the scope of (i.e., further limit) the independent claims from which they depend.

Claims 6, 8, and 19 have each been amended to recite that the mixed filler recited in the allowable claim from which it depends (5 or 18) further comprises yet another particle type.

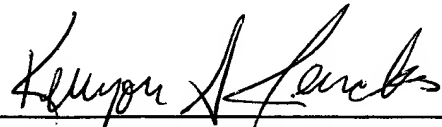
Claims 7 and 27 recite spherical cast tungsten carbide with a particle size in the range of from 100-200 mesh and depend from claims 5 and 23, respectively, which each recite spherical cast tungsten carbide in the range between about 80 to 200 mesh. These claims are proper because the range between about 80 to 200 mesh is broader than the range between about 100 to 200 mesh.

Claims 10-11, 21, 22, 25 and 26 are proper because they further define the term "ultra-fine particles" which is recited the claims from which they respectively depend (9, 20 or 24).

This amendment places all claims remaining in this application in condition for allowance. Accordingly, applicant requests that the Examiner reconsider the rejections in the March 6, 1998 Office action and pass this application to issue.

Respectfully submitted,

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